

University of Dundee

Charting the digital lifespan

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Publication date:
2015

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Discovery Research Portal](#)

Citation for published version (APA):
Durrant, A., Trujillo-Pisanty , D., Moncur, W., & Orzech, K. (2015). *Charting the digital lifespan: Picture Book*. University of Newcastle.

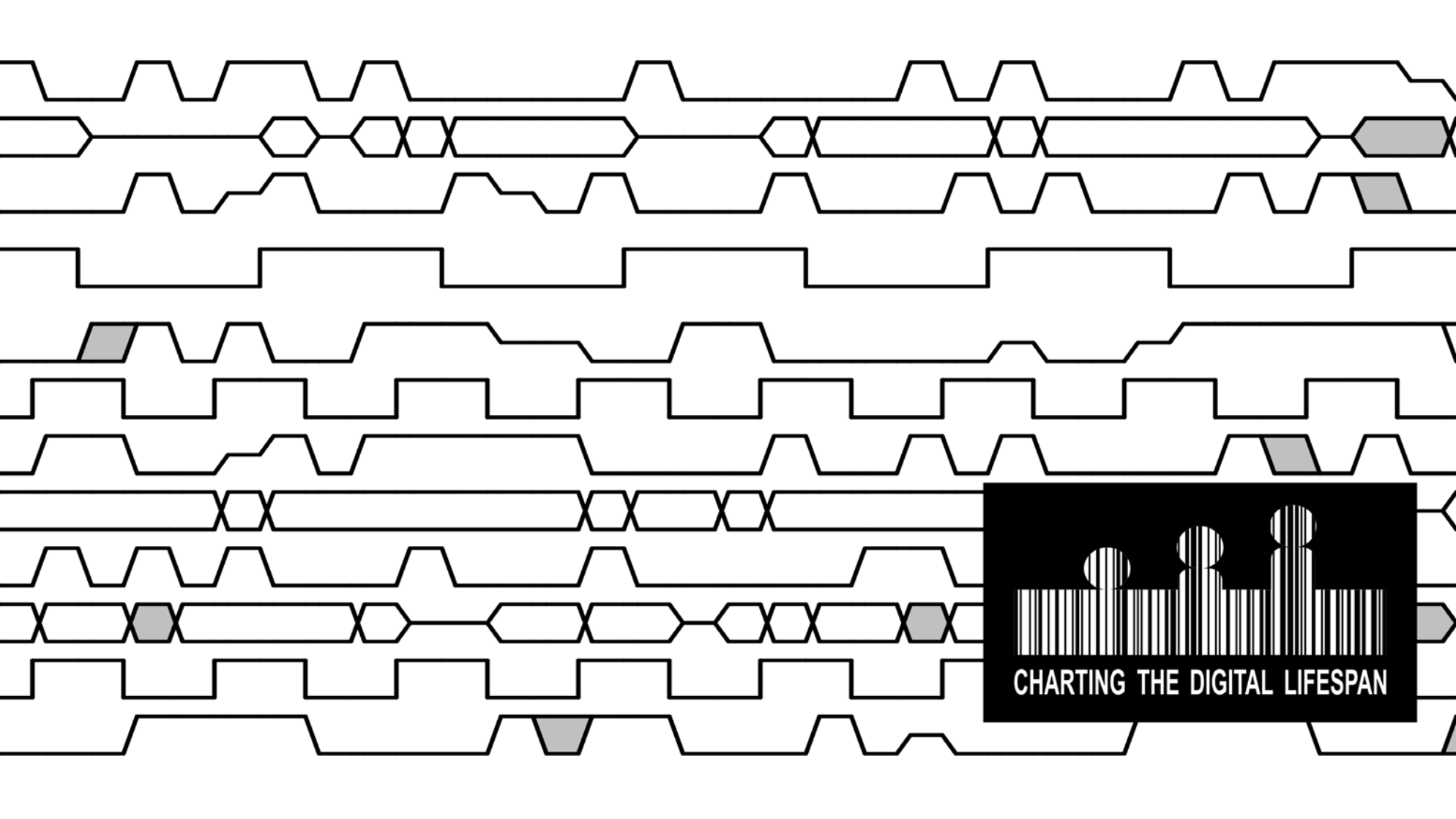
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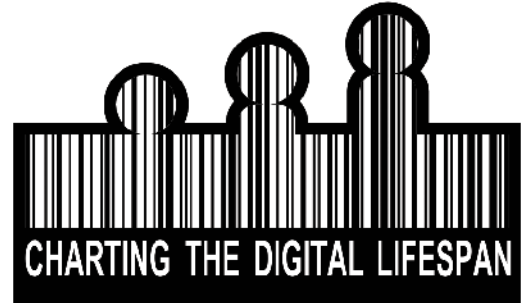
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Durrant, A. C., Trujillo-Pisanty, D., Moncur, W. and Orzech, K. M.
Charting the Digital Lifespan: A Picture Book.
© 2015 Published by Newcastle University, UK
ISBN: 978-0-7017-0250-2



CDL Picture Book

Charting the Digital Lifespan (CDL) is a two-year EPSRC-funded project investigating how UK citizens create and manage their digital identities across the human lifespan. To consider what it means for individuals to 'live out' digital lives from this lifespan perspective, we focus on three significant life transitions: becoming an adult, becoming a parent for the first time, and retiring from work.

Combining expertise in anthropology, design, cultural studies and computer science, the aim is to develop a rich, qualitative picture about how self-representation in a digital context (digital personhood) is experienced at the current time by different generations, and how it is envisioned in the near future as citizens make sense of their changing lives mediated by new technologies. A central goal is to generate social, cultural and technical insights that can inform UK policy-making and service innovation for enhancing digital literacy and enabling self-representation online.

This Picture Book captures collective, interdisciplinary insights from the project, presented in the form of fictional scenarios about individuals' experiences at the three life transitions we have studied. The scenarios are populated with fictional characters that reflect the unique individuals

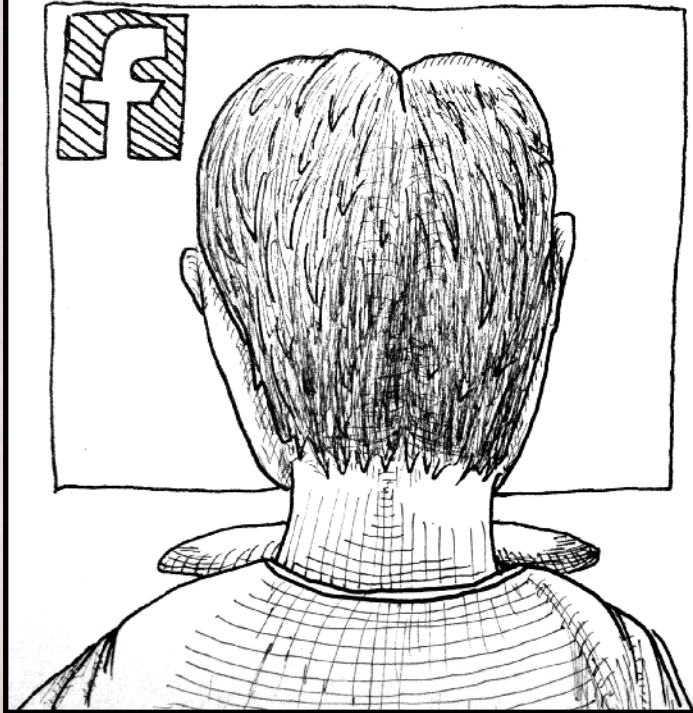
we have met in our studies and their expressed understandings, hopes, and fears about digital personhood in all its complexity. These character-driven scenarios are intended to provide a rich, illustrative context for key CDL research insights, informing strategic thinking amongst stakeholders from public, industry and government sectors on potential applications and transferability, to make a real-world impact in UK citizens' lives.

Using the Picture Book as a 'ticket to talk', we invite stakeholders to consider the social situations and individual behaviours that may be encountered within the UK's digitally mediated landscape. We invite reflection on the differing ways in which citizens understand and engage with tools and media – both currently available, and envisioned – for creating, interacting with, and managing their digital and online identities. The illustrative contexts additionally serve to prompt new questions about how services and systems can be designed to respond to and scaffold the expressions of digital personhood that citizens wish to make as they live through changing life circumstances. Indeed, the qualitative nature of the insights reveals the complexity of individual circumstances that individuals find themselves in as digital citizens. This 'rich picture' aims to open up a service design space of equal complexity.

In this book we present three perspectives on our research, which are each formatted in different ways. Character-driven *scenarios*, depicted in the main picture frames, are intended to contextualise our key findings and communicate their complexity within the life transitions that have been the focus of our study. Woven in to these scenarios are *research insights* generated from our collective empirical work, captured alongside the frames. These insights reflect social and cultural understandings about UK citizens' digital interactions. *Implications for service and system design* provide a third thread, and are presented in round-edged boxes within each scenario.

YOUNG ADULTS

You are browsing through your Facebook feed, the Sunday grey seeping through the drawn curtains over your room's only window.



"It's Neil's 19th birthday today!" Facebook remembers more about your friends than you do these days.



Young adults participating in our studies described signing and sharing online petitions as a way of expressing attitudes and beliefs.

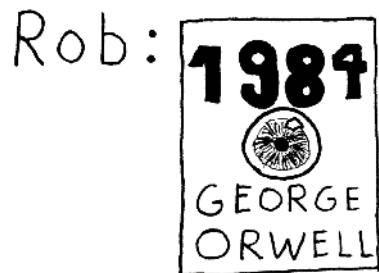
You see the petition SOS: Stop Online Surveillance! was signed by more people. You've signed that weeks ago.

Matt: Please sign



You scroll through and glance at the most controversial comments on the petition.

1062 comments:



Susan: I have
nothing
to hide so
I don't mind
this

A sense of belonging was expressed by young adults by posting content related to attitudes and beliefs on social media profiles.

You get bored; you've already made up your mind about this issue and don't wish to stoke the growing outrage.

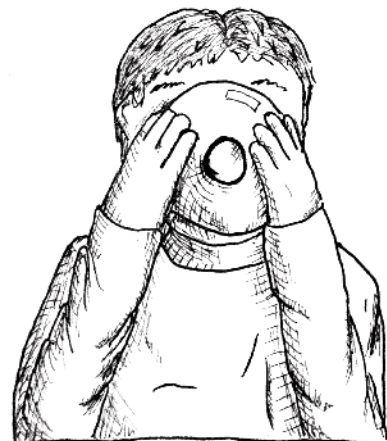
Mike:



Why does the
government fear
its People?

They said it was hard to discern if such online expressions made by their peers were impulsive or serious and carefully considered.

We identify design opportunities to foreground shared attitudes and beliefs between like minded individuals on social media, by leveraging visual communication at the interface.

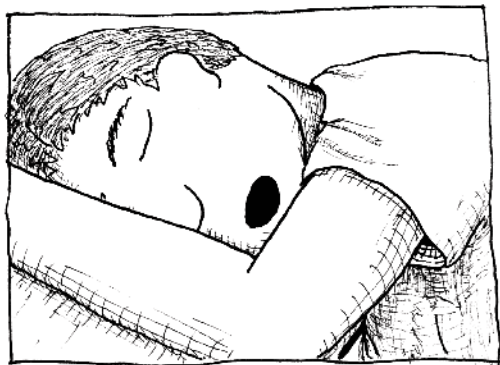


You drink the sugary milk
left in your cereal bowl.

Jack has tagged you in a photo, sleeping in class. You expected better from him but you appreciate the humour in it.

DING!

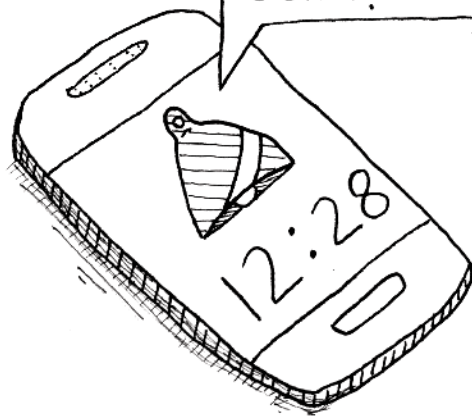
Jack has tagged you in a Photo!



Young adults expressed a sophisticated understanding of how online portrayals of them were shaped by others posting pictures of them.

It is now 12:28 and you agreed to play a League of Legends match with Sam in two minutes.

Play with Sam!



We found that young adults will make arrangements to spend time online together, particularly gaming but also on messenger and video call services.

You connect and start chatting with Sam whilst you two join a public match.



As your team enters the arena you all get a message from darkAngel: "Good luck have fun".



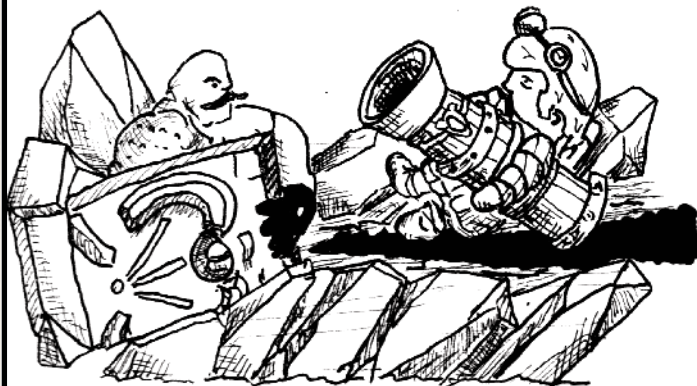
Good luck
have fun!



Thx!

The fighting begins and you slay one of the enemy's heroes. darkAngel compliments you.

You Killed TheSlayer



Well done!

You are typing a reply when you get hit by an enemy and die.

You were Killed by



DereK37

Respawn in 20 sec

We found that young adults communicate via frequent messaging throughout the day, using a range of services and devices.



Don't worry
you got one of
theirs too



We're still
winning at least



We'll go together
this time

As your hero revives, darkAngel joins
you on the battlefield and helps you
defend.

You were Killed by



ATATAT

Respawn in 20 sec

You keep exchanging chat
messages with her, it is
distracting you, and your
team loses the match.

You chat to her for a while afterwards. She's 19 and
lives in your area. You find that you share interests
other than games, and exchange real names with her.



Sorry about
that



that's OK I enjoyed
the conversation




:)



Where are you
playing from?

You get a Facebook friend request from her shortly afterwards. You're in luck, you've met a gamer girl and now you're Facebook friends.

 New friend request



Emma Jones

0 Friends in common

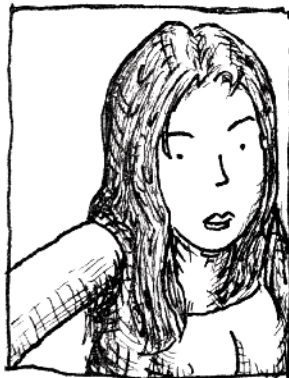
confirm

ignore

"It's DarkAngel from the game"

It was common for our participants to become Facebook friends with people they knew only casually, especially if they had "got on well."

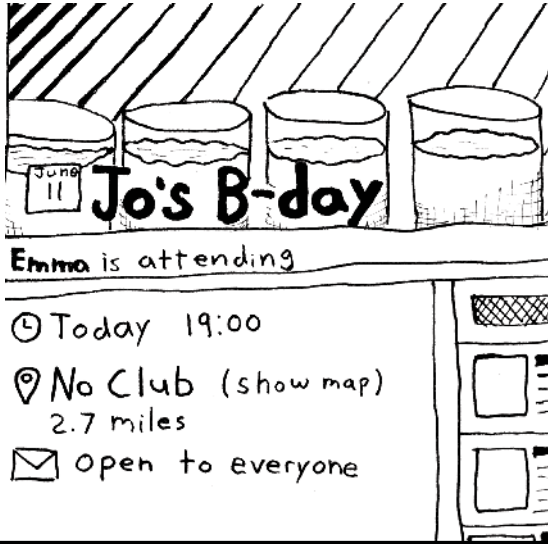
darkAngel doesn't have many photos of herself on her profile. It's mainly reposts. In her few selfies she seems very attractive.



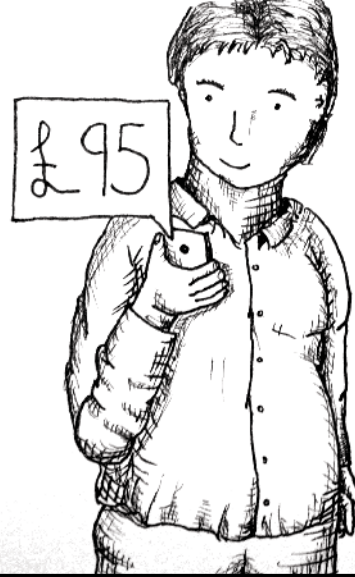
We recognise significant design potential to provide people with more online tools for crafting their individual identities using graphical elements - e.g. more font options on textual expression, and tools for creating photographic collages within social media apps.

The young adults often represented themselves by sharing existing content and posting references to things they like, sharing and reusing existing content.

You check her events tab. She is attending a birthday party at a club not too far from you in a couple of hours!



You log in to online banking and make sure you have enough funds to buy her a drink...



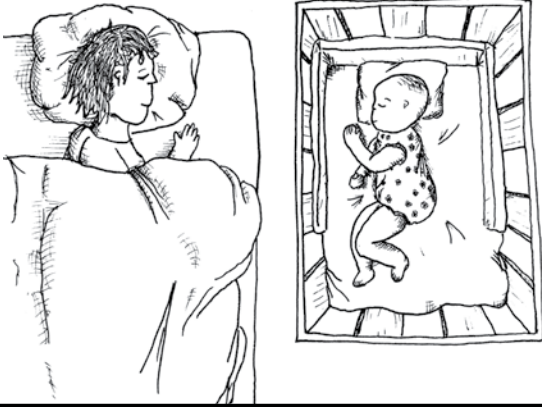
And slam the door shut behind you as you excitedly leave the house.



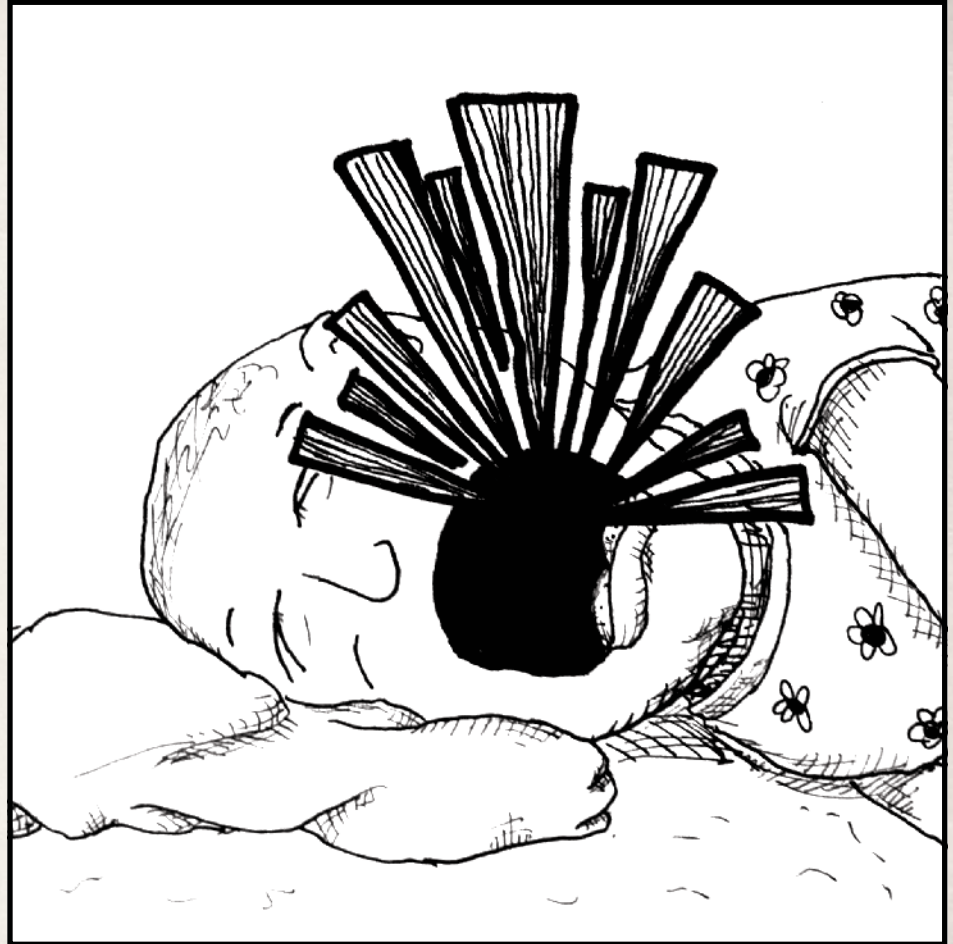
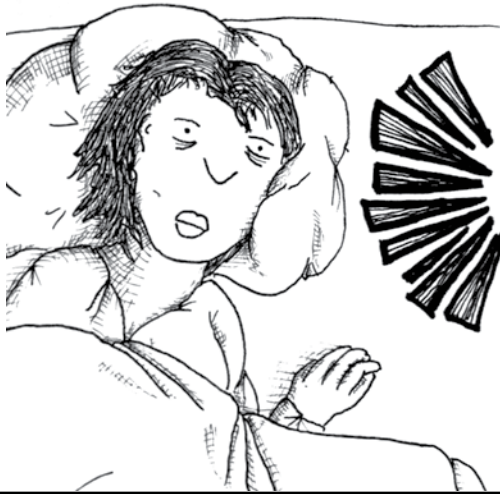
They described using social network sites (SNS) like Facebook to plan events because it's easy to invite everyone and see their responses in one place. Their use of online banking increased as young adults began managing their own money.

NEW PARENTS

Ann has been a mother for two months. She is filled with feelings of joy and love for her child.



She is also experiencing unprecedented anxieties and a sense of isolation, sleep deprivation and confinement.

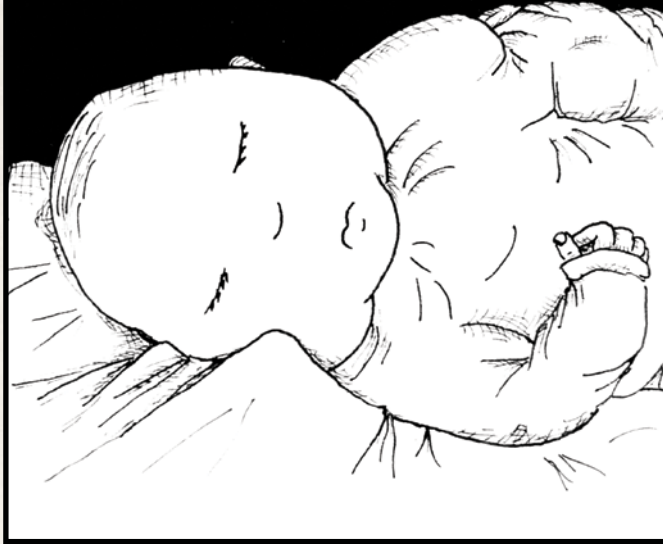


Ann has found herself drawn to online social media quite a lot since she gave birth. At first she used social media as a way to pass time whilst her daughter Helga fed...



We found in our studies that new mums, on Maternity Leave from work, used social network sites (SNS) and other online services on phones or tablets when their babies were small.

But now finds it useful to keep her family and friends updated about Helga's development and all of the cute faces she makes.



New parents shared photos of their babies with friends and family via social network sites (SNS), sometimes out of social expectation. Some preferred to post more intimately to closed groups or individuals (e.g. on WhatsApp, email).

She also finds it helpful for dealing with anxiety and often posts questions to other mothers asking if Helga's behaviour is normal and what to expect as she grows.

Helga has been sleeping more than usual. Should I worry?

Publish

New mums shared experiences with other mums online. Mums under 30 tended to use SNS for advice, whilst older mums turned more to browsing online forums and were more reluctant to post.

Ann has recently been annoyed by her ex-boyfriend Sam, as he keeps 'liking' everything she posts on Facebook...

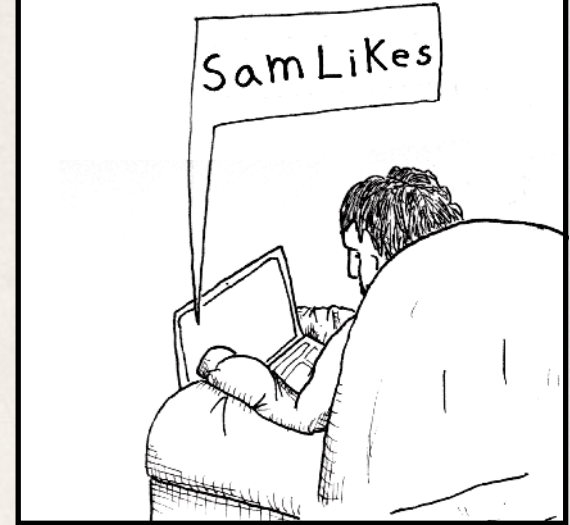


Life transitions lead to changes in self-identification with social groups.

From photos of Helga to questions about postnatal depression.



She unfriends Sam but he still gets some of her content through the mutual friends that they still share.



Existing tools for the creation, management, and membership of online groups are crude and relatively static in terms of how they currently support people's desired interactions and changing participation in groups over time. We identify design potential for more dynamic approaches.

Ann feels that her privacy has been compromised and is reminded of some of her experiences during pregnancy...

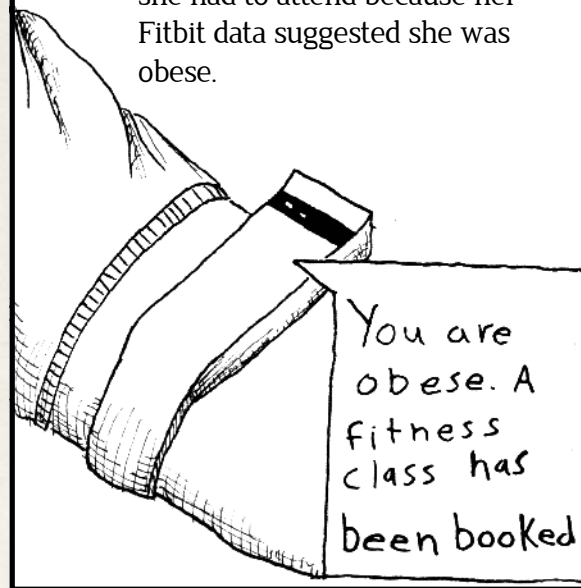


Such as the automatic healthcare appointment created for her through an internet-enabled pregnancy test...



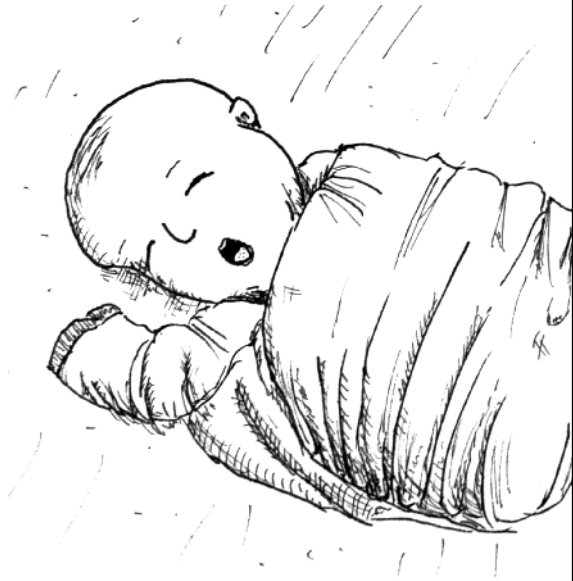
Or when she got that "concerned" automated text message after buying a bottle of gin...

And the 'Pregnancy Fitness Class' she had to attend because her Fitbit data suggested she was obese.



Some of the new parents participating in our studies perceived the near future as a scary place, where monitoring was pervasive and technology had crossed the line from annoying to "disturbing" and "creepy."

As Ann looks at her recent posts, she starts to feel that she is posting too many baby-related things and very little about herself.



SNS are useful for keeping in touch with remote family and friends, so new parents are encouraged to publish content they may otherwise not choose to publish.

It makes her feel like she has become a generic mother and has stopped being Ann.

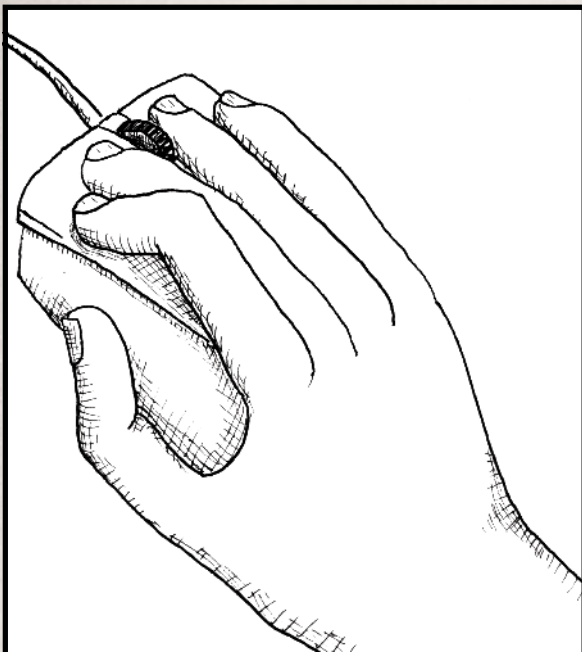


New parents, and especially new mums, found themselves posting photos of their new baby much more than they anticipated prior to birth. They felt self-conscious about this.

She is also worried about Helga being embarrassed by all the baby-related pictures and posts when she gets older.

Ann:
Really starting
to see the
advantages of
cloth nappies.

Many new parents were concerned about creating an online presence for their children, and worried about the information about their child that could be available online in the future.



Ann searches the web for a way to manage her digital content to address these concerns.

She finds "Social Mum", a content management app for new mothers.



The app includes a privacy setting that allows her to select who can see her posts. It also has a chat room and forum where new mums can ask for advice without exposing it to others.

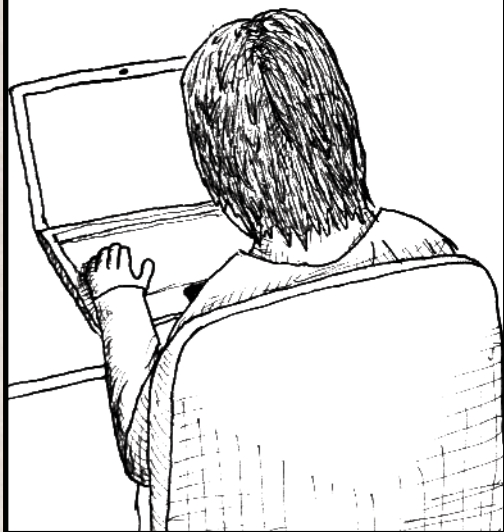
Block:

Sam I

Accept

Expression of self during life transitions is complex and nuanced, and this complexity is not supported by current social media offerings. We identify a design challenge to support people in creating and managing a multifaceted expression of themselves during life transitions, and for service providers to recognise and respond to these multiple facets of self.

After installing Social Mum, Ann feels she has more control over her privacy. Sam hasn't liked a single post she's made.



Our research participants spoke positively about managing posting, often balancing a social obligation to share with concerns for privacy.

Helga Robinson



Web Images video shopping

Youtube: Look at her laugh

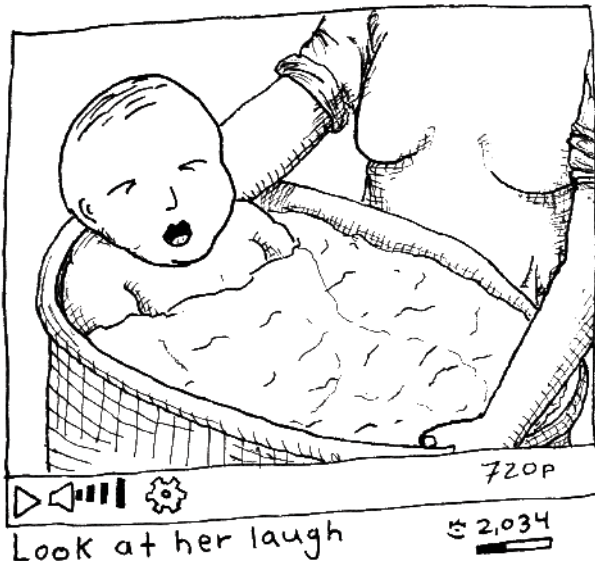
Helga Robinson takes her bath and really enjoys it.

Robinson name history

Where does your surname come from and what does it mean.

As a way of checking that things are truly private, Ann decides to Google Helga's full name.

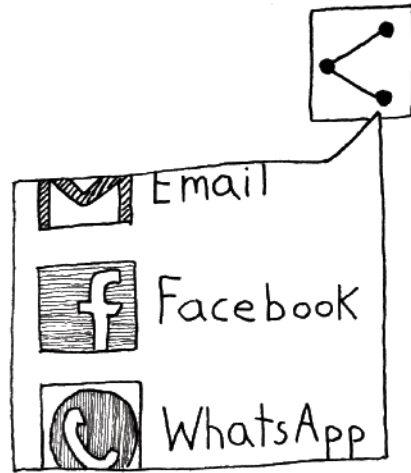
She's shocked to find a YouTube video of her baby giggling in the bath. And it has over 2000 views!



She remembers seeing the video just after it was shot by her husband Andy...



And she confirms that he did post it on Facebook,



New fathers tended to represent their child on SNS less frequently; although they took pictures, it was often down to the mum to post or share them. Some fathers, especially those with primary caretaking responsibility, did post and share as much as the mums.



But how did it get out to the public?

Ann immediately suspects Sam of stalking Andy's Facebook feed as well and leaking the video.

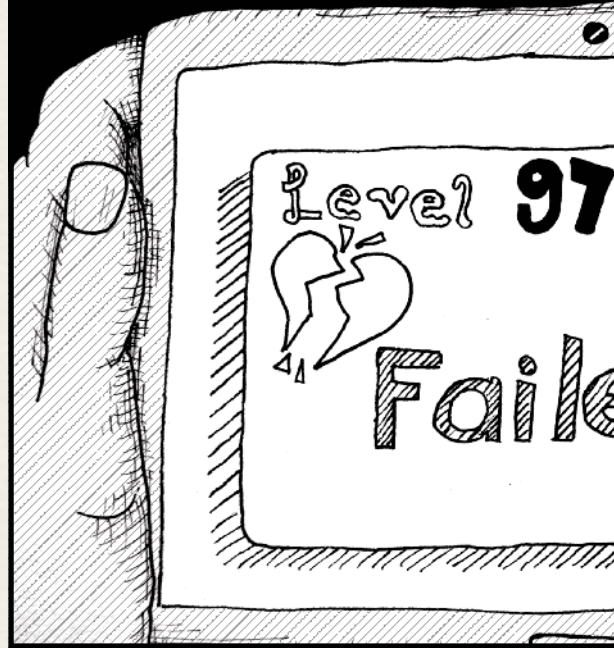


RECENT RETIREES

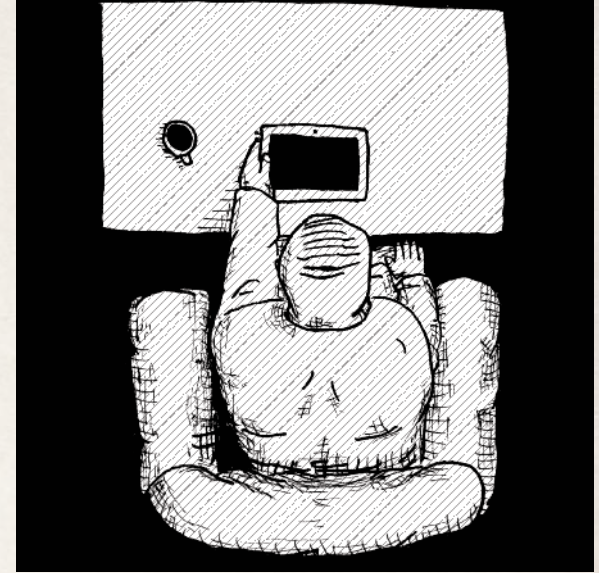
Nick has been playing Candy Crush for the last couple of hours and hasn't realised that it has gone dark.



He fails to complete the current level once more and decides it is probably time to stop playing.



He leaves his tablet on the coffee table and gets up to turn on the lights.



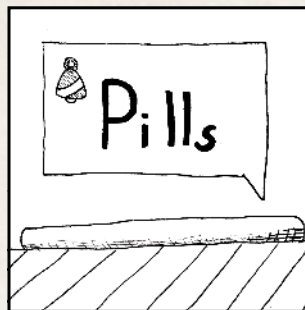
Some recent retirees participating in our studies described playing video games as part of their daily routine, especially in the evenings; a few described this activity as addictive.

On receiving the tablet from his son Andy, Nick has used it extensively in everyday life...



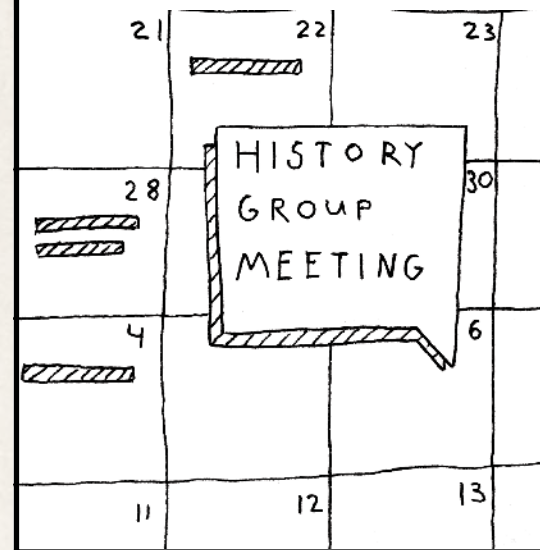
Our retiree participants were often introduced to new devices, sites, or digital services by a younger family member or friend.

We identify rich potential for government services to enable civic and community participation via online interactions with recent retirees.



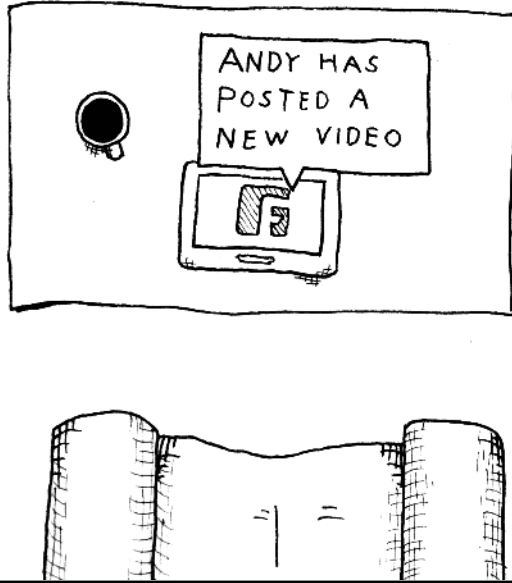
We found digital literacy to vary amongst recent retirees, but collectively there is a wealth of technology experience amongst them. Technical skills acquired in the workplace are often repurposed in retirement.

From setting reminders to take his pills, to coordinating meetings for the British history group that he leads.



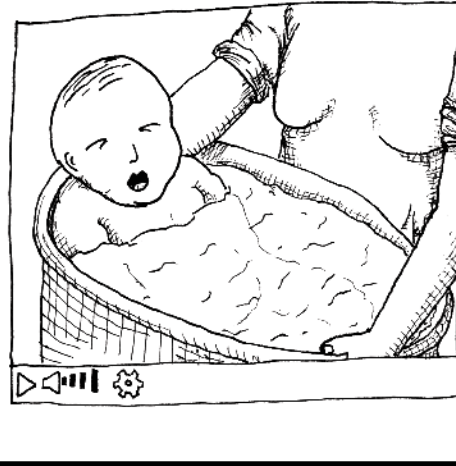
Whilst our retirees tended to have busy offline lives, they regularly used online tools to keep up with their offline activities, e.g. following email reminders for classes and meetings and looking up schedules.

Whilst Nick is away from his seat he gets a notification from Facebook.

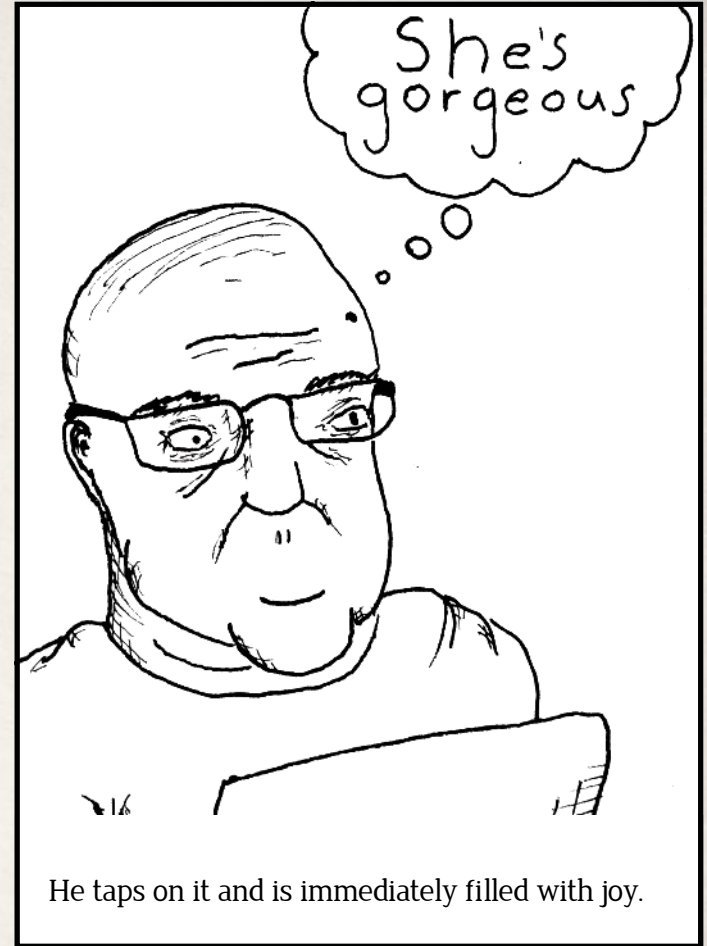


Our participants demonstrated a shift in technology use in their transition to retirement, taking up new devices and applications, and using email heavily in their personal life to coordinate new leisure time.

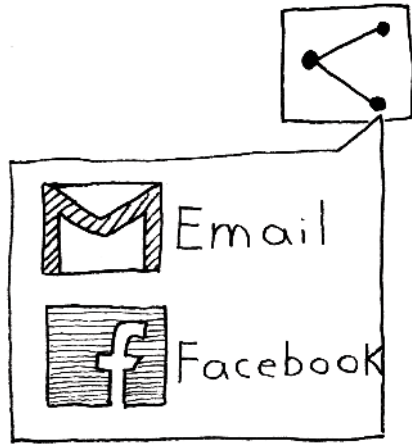
Andy has shared a video of Nick's granddaughter -Helga- laughing in the bath.



Some recent retirees spoke about the importance of being online to keep up with their children and grandchildren. This was one of the reasons for being on SNS.

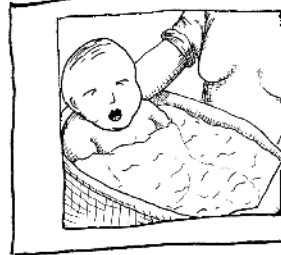


He taps on it and is immediately filled with joy.



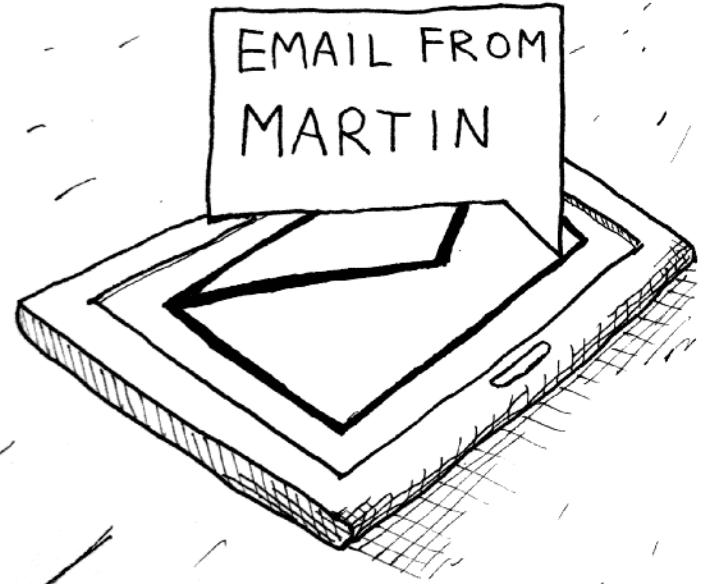
Nick decides to email the video to Bob and Martin, his two closest friends.

To: Bob; Martin



His friends' addresses fill in automatically when he starts to type them because his friends frequently email each other.

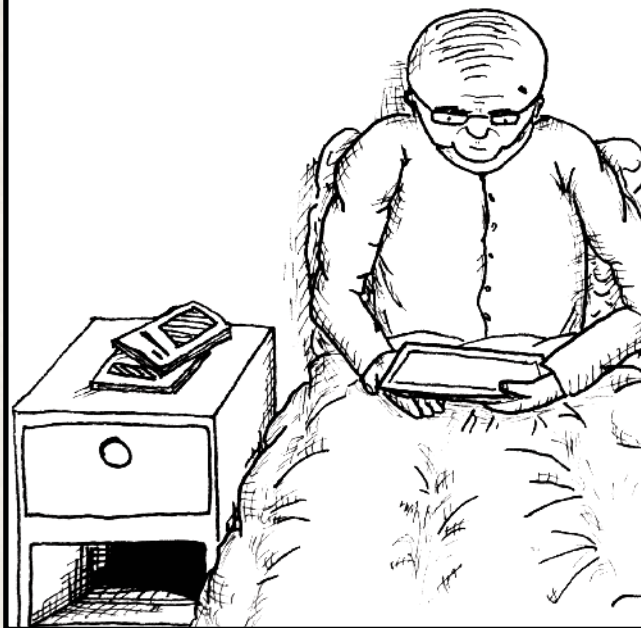
The following morning Nick wakes up to find that Bob and Martin have replied to his email.



From: Martin ↵ ➡
She's lovely!
Andy should be
more careful
sharing this,
you never know
who might see it

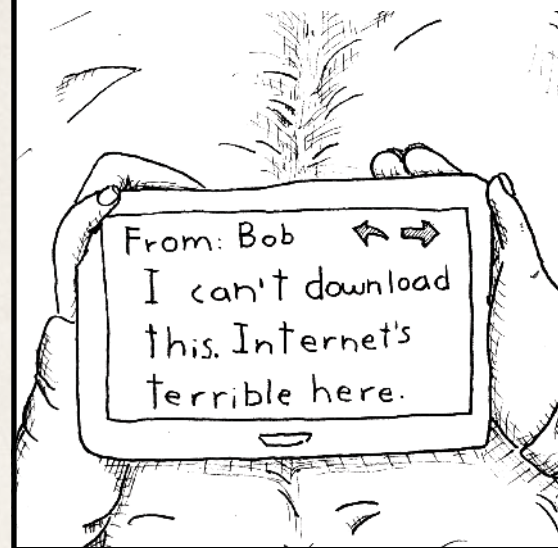
Nick is hardly surprised by Martin's reply as he has always been distrustful of technology and slightly paranoid in general.

But in fairness, Andy should really be more careful.



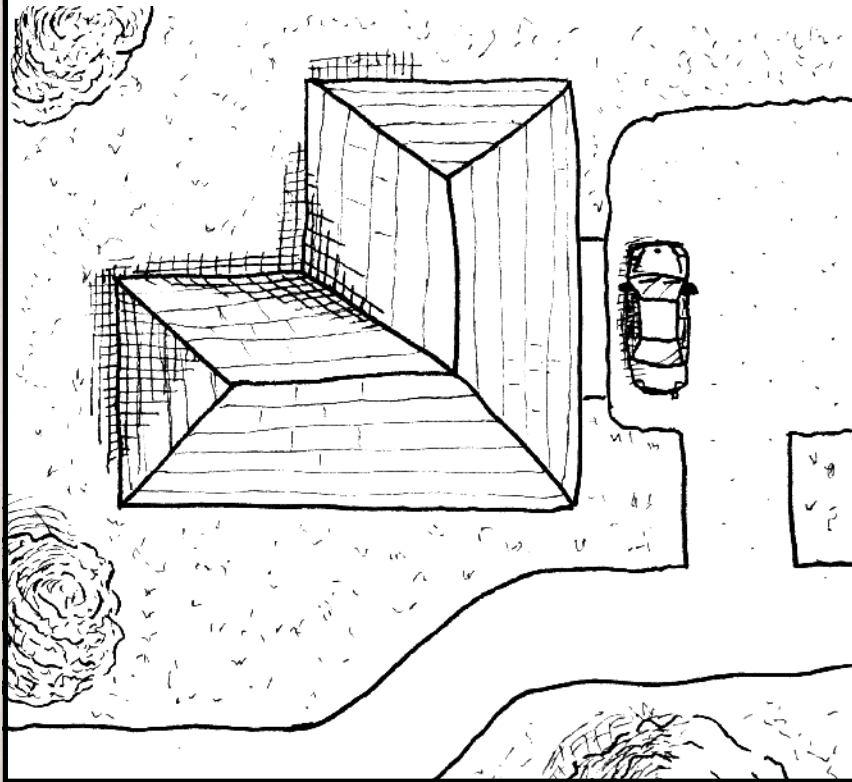
We found that some recent retirees were concerned for privacy and distrustful of posting photos or providing information online. This was often related to articles they read or personal stories passed on from others about the dangers of being online.

Nick didn't consider Bob's connection issues when he sent him the video.



Retirees spoke about using online services to communicate with friends. This became complicated because not all of their friends were online or using the same services.

After he moved into the countryside, Bob's mobile phone rarely gets reception and his internet connection has become very slow.



Nick really wants Bob to see the video as he is a very close friend so he searches the Web for ways to share it with him.

DVD-SEND

Physical video sharing for £4.99.
we are #1 for digital video transfers to DVD disks

How to send large videos

8 easy ways to share your videos online.
1) upload to youtube.com. youtube accepts many different types

Shooting

How to shoot
can make
formats.

Sharing

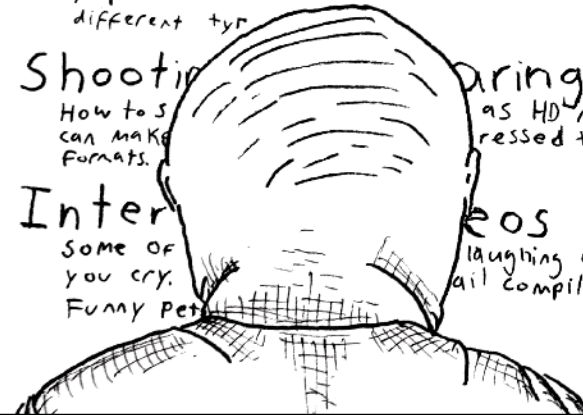
as HD resolution
pressed to other

Inter

Some of
you cry.
Funny Pet

ideos

laughing until
all compilations.



Retirees' time online is more about browsing and exchanging information than self-expression.



He finds DVD-Send, a website that lets people upload their videos and then posts them to friends as DVDs.

The website asks for Nick's personal details as well as for Bob's address, telephone number and email.

— Sender —

Name

Address

Telephone Number

— Recipient —

Name

Address

"Bob has a DVD player," thinks Nick as he uploads Helga's 'giggling video'.

upload your video

File name

HelgaInBath.mp4



Describe your video

Helga Robinson takes her bath and really enjoys it.

upload

Our participating retirees were concerned about giving out too much personal information online. Requests for phone numbers and street addresses were seen as over-intrusive.



DVD-SEND

Order
Confirmation

Nick proceeds to place his order. An email confirmation reaches him shortly after.

What does trust mean in design terms? As a service provider, how do you gain retirees' trust? We identify untapped opportunities to support recent retirees in finding and using trustworthy government and public service websites - and identifying misleading ones.

He is left feeling a bit dubious about the website as it didn't look as nice as other sites he'd used before such as Amazon or Ebay.



However, he feels reassured by having found the website on Google, a service that has recommended him reliable sites before.



Recent retirees tended to trust sites recommended to them by others, and well-established sites with a recognisable brand presence (e.g. Amazon, Google). These felt safer and less vulnerable to hacks.



CDL project team

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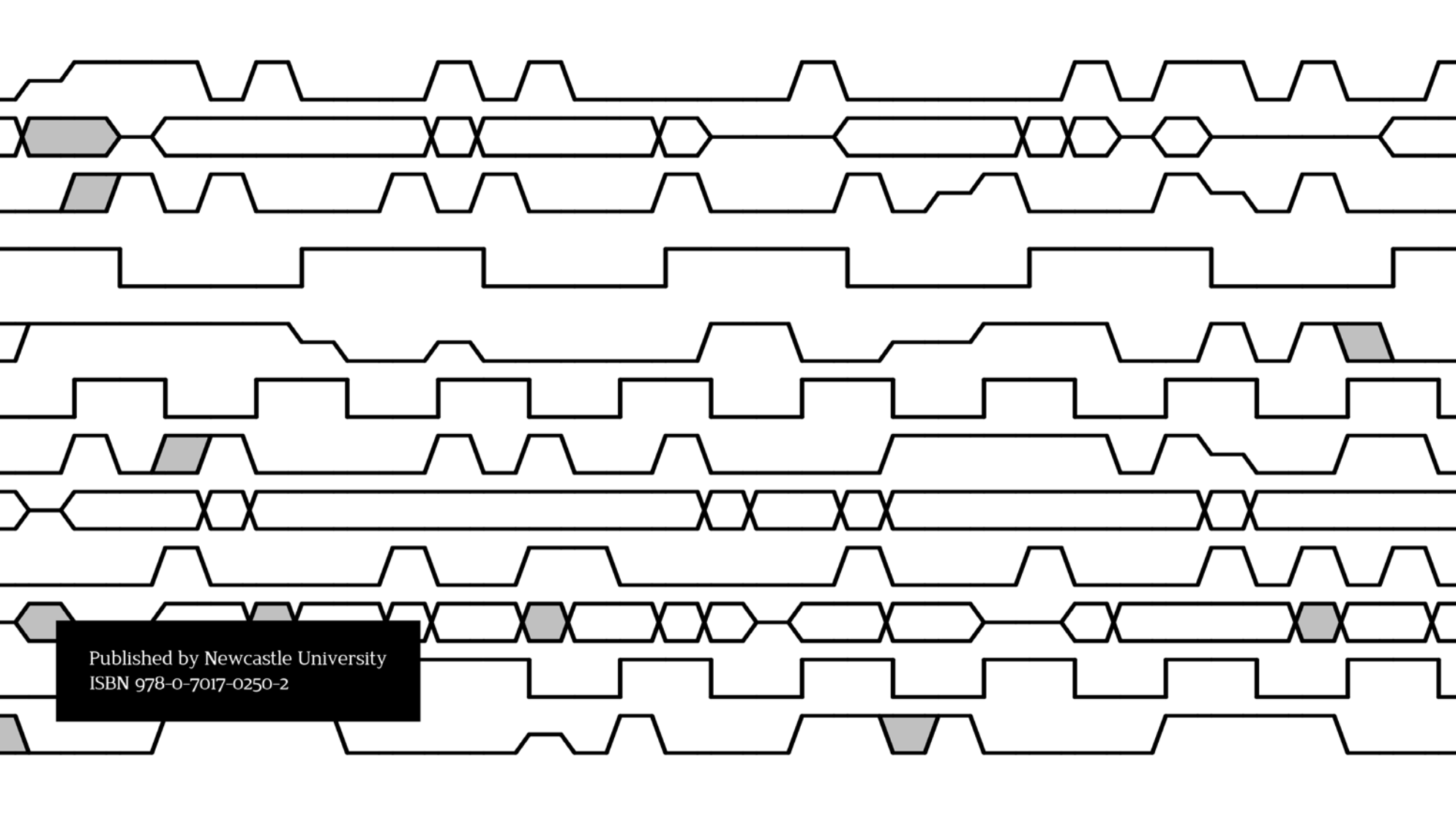
Picture Book production

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Illustrations by Diego Trujillo-Pisanty



The Leverhulme Trust



Published by Newcastle University
ISBN 978-0-7017-0250-2